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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,595	02/04/2002	Evan Randy Kirshenbaum	10007915	5913

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

PATEL, RAMESH B

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 02/11/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

# **Office Action Summary**

Application No.

10/067,595

Applicant(s)

KIRSHENBAUM, EVAN RANDY

Examiner

Ramesh B. Patel

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## **Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## **Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## **Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## **Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1-17 are presented for examination.

### **Claim Objections**

2. Claims 11-12, 14 and 16-17 are objected to because of the following informalities:

Claims 11-12, 14 and 16-17, includes the term "the likelihood" is not appropriate term for the claim language. Applicant is suggested to review all claims and make appropriate correction as required.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 9, 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such

Art Unit: 2121

omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the limitation(s) "generating a predictor" and/or "generating a candidate solution" and/or "fitness of the candidate solution" and/or "the fitness case includes data"; examiner is not sure how a predictor can be generated and a solution can be candidate which being generated for the predictor and the fitness can includes data is not clear what it meant and there is not a proper structural relationships between these limitation, it appears to be missing some information and/or it is not clear to interpret the structural relationship between the limitations as to what it meant. The meets and bound are not clear for the above stated limitations and could not be determined. Here examiner has given some example to assist applicant; however, the applicant is suggested to review all claims and make appropriate correction as required.

Claims 8 and 13 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the limitation(s) "A manufacturing system" and/or "an eventual failure..."; examiner is not sure how a manufacturing system comprising a set of process steps..." and how a predictor can predicts an eventual failure..." is not clear what it meant and there is not a proper structural relationships between these limitation, it appears to be missing some information and/or it is not clear to interpret the structural relationship between the

Art Unit: 2121

limitations. The meets and bound are not clear for the above stated limitations as to what it meant and could not be determined. Here examiner has given some example to assist applicant; however, the applicant is suggested to review all claims and make appropriate correction as required.

Regarding claims 11-12, 14 and 16-17, the phrase "or the like" and/or "the likelihood" and/or "for example" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Dependent claims, which are not particularly rejected, are rejected based on the rejected base claim.

#### **Claim Rejections - 35 USC § 102**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzukiet al. (US Patent 6,370,437).

As to claims 1, 8 and 13, Suzuki teaches the invention including a method and manufacturing system for generating a predictor of failure of a manufacturing process comprising the steps of: generating a candidate solution for the predictor is taught as a workshop evaluating database, extracting from the prepared workshop evaluating database those failure occurrence ratio indexes...workshop-conditioned failure influential items and evaluating/estimating failure occurrence for standard manufacturing works (see, abstract, lines 3-9 and figures 1-2); determining a fitness of the candidate solution using a fitness case pertaining to the manufacturing process wherein the fitness case includes data obtained at a process step associated with the predictor and data obtained from at least one other process step is taught as the method and apparatus is capable of evaluating/estimating failure occurrence for standard manufacturing works in the manufacturing workshop (see, abstract and figures 4-5 and col. 7, lines 11-60 and col. 8, lines 12-19 and col. 9, lines 35-60).

As to claims 2, 9 and 14, Suzuki teaches the method and the system wherein the step of determining a fitness includes the step of determining a fitness of the candidate solution using a fitness case pertaining to the manufacturing process and a set of costs associated with the manufacturing process (see, figures 4-5 and 13 and col. 7, lines 11-60 and col. 8, lines 12-19 and col. 29, lines 16-31).

As to claims 3, 10 and 15, Suzuki teaches the method and the system wherein the step of determining a fitness of the candidate solution includes the steps of: obtaining a prediction from the candidate solution in response to the fitness case; comparing the prediction to an actual result associated with the fitness case; reinforcing the fitness of the candidate solution using the costs if the prediction corresponds to the actual result; reinforcing the fitness of the candidate solution using the costs if the prediction does not correspond to the actual result (see, abstract and figure 13 and col. 29, lines 16-31); fitness of the candidate solution using a fitness case pertaining to the manufacturing process and a set of costs associated with the manufacturing process (see, abstract).

As to claims 4-6, Suzuki teaches the method and the system wherein the steps of reinforcing comprise the step of adjusting the fitness using a cost of running a sub-portion of a product to an end of line of the manufacturing process and an expected revenue from a sale of a product and a cost of manufacturing a replacement sub-part of a product produced by the manufacturing process (see, abstract and figure 13 and col. 29, lines 16-60).

As to claim 7, Suzuki teaches the method further comprising the step of selecting the candidate solution as a parent for a next generation of candidate solutions in response to the fitness (see, abstract and figures 1-2).

Art Unit: 2121

As to claims 11-12 and 16-17, Suzuki teaches the method and the system wherein the sub-assembly is discarded if the failure exceeds a threshold value and the sub-assembly is not discarded if failure exceeds a threshold value and the process data for the sub-assembly is used as an additional fitness case to re-evolve the predictor (see, figure 13 and col. 29, lines 37-52).


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh B. Patel whose telephone number is 703-308-6673. The examiner can normally be reached on M-Th; 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703-305-0282. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9051 for regular communications and 703-305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

  
Ramesh B. Patel  
Primary Examiner  
Art Unit 2121

February 8, 2004